

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

TITLE V DRAFT PERMIT No. V-03-015 Revision 2

ARKEMA INC.

CALVERT CITY, KENTUCKY 42029

March 2, 2007

CAROLINA ALONSO, REVIEWER

SOURCE I.D. #: 21-157-00007

SOURCE A.I. #: 2918

ACTIVITY I.D. #: APE20070001

SOURCE DESCRIPTION:

Arkema Inc. (Arkema), Calvert City, is a specialty chemical manufacturing plant. The source is a major source, as defined by 401 KAR 52:020 Title V Permits, for the potential emissions of over 100 tons per year of particulate matter less than ten microns (PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC), the potential of a single hazardous air pollutant (HAP) greater than 10 tons per year, and the potential combined HAP emissions greater than 25 tons per year.

The source is also a major source, as defined by 401 KAR 51:017 Prevention of Significant Deterioration of Air Quality (PSD), for potential emissions of over 100 tons per year of particulate matter (PM), SO₂, NO_x, CO, and VOC.

A sourcewide Title V permit was issued to the facility on May 19, 2006, for the purpose of Title V permitting. This facility is split into the following areas:

1. Boiler area
2. Monomer plant
3. Polymer plant
4. K-97 plant/F-140s Process
5. K-98 plant
6. F-134a plant
7. K-97 plant/F-32 process
8. Logistics, packaging, and loading
9. Incinerator
10. Remediation

MINOR PERMIT REVISION FOR F-134a and Trans-1,2-Dichloroethylene blend packaging:

Arkema proposes the installation of equipment that will be used to package blends of F-134a and Trans-1,2-Dichloroethylene into trucks and cylinders. The new equipment will result in 14.05 tons per year increase in VOC emissions. The project will not result in ozone depleting substances (ODS) or HAP emissions.

Emission points PKE and PKG were added to page 209 of Section B of permit V-03-015 Revision 2, for Nitrogen/F-134a/Trans 1,2-Dichloroethylene Blend Returned Cylinder Evacuation and F-134a/Trans 1,2-Dichloroethylene Blend Fugitive Emissions. The following insignificant activities were added to the Logistics, Packaging, and Loading table in Section C of permit V-03-015 Revision 2: Trans 1,2-Dichloroethylene truck receiving dock(s); F-134a / Trans-1,2-Dichloroethylene blend cylinder filling (one cylinder filling station); F-134a / Trans-1,2-Dichloroethylene tank truck filling (one tank truck filling station); Trans-1,2-Dichloroethylene pressurized storage vessel(s).

COMMENTS:

Type of control and efficiency:

NA

Emission Factors and their source:

Fugitive emissions were calculated using SOCFI average emission factors from Table 2-1 of U.S. EPA "Protocol for Equipment Leak Emission Estimates", EPA-453/R-95-107, November 1995. The rest of the emissions were calculated using engineering estimates for the emission factors.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.